



Department of Energy

Bonneville Power Administration

P.O. Box 3621

Portland, Oregon 97208-3621

POWER SERVICES

April 28, 2016

In reply refer to:

To: Regional Customers, Stakeholders, and Other Interested Parties

RE: FINAL DECISION - Amendment No. 3, Power Sales Agreement with Alcoa, Inc.

On April 12, 2016, the Bonneville Power Administration (Bonneville) requested public comments on the issue of whether Bonneville should enter into proposed Amendment No. 3 to Power Sales Agreement 13PM-10978 (Agreement) between Bonneville and Alcoa, Inc. (Alcoa) for service to Alcoa's Intalco aluminum smelting plant. Prior to this announcement, in addition to negotiating the terms of proposed Amendment No. 3 with Alcoa, Bonneville discussed the proposed amendatory terms and conditions on two occasions with representatives of Bonneville's preference customers, first on March 22, 2016 and then again on April 4, 2016. Bonneville values the input provided in these two discussions and considered the input received when negotiating and drafting this proposal.

In its announcement of the comment period, Bonneville provided a draft of the proposed amendment as well as an explanatory document providing background and evaluation of the expected benefits of entering into Amendment No. 3. In particular, Bonneville asked for any comments and guidance bearing on whether entering into Amendment No. 3 would be consistent with sound business principles. The comment period closed at 12:00 noon on April 22, 2016.

To one degree or another, all comments either supported, or did not object to, Bonneville offering Amendment No. 3. While some concerns were noted regarding procedural issues and the methods used to determine the value of the transaction to Bonneville, no comments stated compelling reason why the transaction should not be pursued, identified any significant risks that have not been accounted for, or asserted that the Amendment No. 3 has no positive value to Bonneville.

A conformed copy of Amendment No. 3 is attached. The term of Amendment No. 3 will begin on July 1, 2016, and expire on February 14, 2018. In general, Amendment No. 3 temporarily suspends Bonneville's right to require Alcoa to purchase 75 MW of power at the Industrial Firm (IP) power rate prior to turning to market purchases of power to operate the plant. Instead, Alcoa will buy 10 MW of power at the IP rate before turning to the market. A significant portion of the consideration to Bonneville for suspending the contractual restriction is a cash payment in the amount of \$1.5 million. Other benefits associated with the contract arrangement have been identified and calculated consistent with methods adopted in Equivalent Benefits Tests previously used to evaluate contracts and contract amendments with Alcoa. Thus, Bonneville

remains convinced that its methodology, while not necessarily exact in some instances to the dollar amount, provides a reasonable assessment comparing the option of taking no action and selling 10 MW of IP power to Alcoa, versus the net value of Amendment No. 3.

For these reasons, Bonneville has concluded that entering into Amendment No. 3 is consistent with sound business principles and will sign the Amendment no later than April 29, 2016. A more detailed analysis and explanation of this decision is provided in the attached document captioned "Final Decision - Alcoa Amendment No. 3," which includes a summary of the financial benefits that will accrue to Bonneville and discussion of comments provided by customers and other interested parties.

Bonneville appreciates the time and effort it took for commenters to participate in this process. Bonneville is grateful for the large amount of support that it has received even when that support was tempered by other concerns regarding the relatively brief time permitted for comments and questions regarding Bonneville's methods for evaluating the transaction. Hopefully, the attached decision document will provide clarification on issues that have been raised.

Sincerely,

/s/ Suzanne B. Cooper

Suzanne B. Cooper

ATTACHMENTS:

Final Decision – Alcoa Amendment No. 3

Amendment No. 3

**FINAL DECISION DOCUMENT IN SUPPORT OF
AMENDMENT NO. 3 TO POWER SALE CONTRACT NO. 13PM-10978
BETWEEN BONNEVILLE POWER ADMINISTRATION AND ALCOA, INC.**

April 28, 2016

TABLE OF CONTENTS

I. Overview.....	4
II. Background.....	4
III. Structure of Amendment No 3	5
IV. Description of Quantitative Benefits.....	6
V. Description of Qualitative Benefits.....	8
VI. Economic Comparison of the Alternatives	9
VII. Features of the Amendments	10
VIII. Environmental Effects.....	11
IX. Evaluation of Comments.....	12
X. Conclusion	21
Attachment A Economic Value of Alternatives.....	22
Attachment B Customer Comments	23

I. Overview

Bonneville has determined that it will offer to Alcoa Amendment No. 3 to Alcoa, Inc.'s (Alcoa) current Power Sales Agreement 13PM-10978 (Agreement). Amendment No. 3 goes into effect on July 1, 2016, and expires by its terms on February 14, 2018. The fundamental purpose of the proposed Amendment No. 3 is that, in exchange for Alcoa providing the positive benefits described in this analysis, Bonneville waives its contractual right to require Alcoa to purchase 75 MW of power at the IP rate prior to Alcoa making purchases on the open market to operate its Intalco aluminum smelting facility in Ferndale, Washington.

The benefit to Alcoa of this arrangement is that it will be able to maintain plant operations at their current level of two and one-half pot lines with approximately 350 MW of power, purchased mostly on the market, rather than curtailing production to only its cast house operations and purchasing a maximum of 10 MW from Bonneville under its current contract for the period of time covered by Amendment No. 3.

The proposed Amendment allows Bonneville to obtain substantially greater immediate benefits during its term than it would achieve if Alcoa were to exercise its curtailment rights under the contract and purchase 10 MW of power from Bonneville at the IP rate. Bonneville's analysis estimates the total additional value of entering into Amendment No. 3 to be slightly over \$5.29 million. These benefits include: 1) \$1.5 million cash payment; 2) \$635K indexed market sale with \$0.75 price adder; 3) \$2.03 million in Avoided Transmission and Ancillary Service Expenses; 4) \$572K of potential Oversupply Reduction Cost; and 5) \$548K in additional Contingency Reserves offered at no cost to Bonneville.

II. Background

On November 16, 2015, Alcoa notified Bonneville that it was exercising its right to curtail its purchase amount from 75 MW to 10 MW starting February 15, 2016, through August 14, 2017 (Curtailment Period). Then on January 11, 2016, Alcoa requested that the parties engage in discussions regarding under what conditions Bonneville would allow Alcoa to purchase power from the market from February 15, 2016 through June 30, 2016 to maintain operations rather than curtailing production.

Pursuant to Section 5.5 of the Agreement, Alcoa cannot make any market purchases from third-party suppliers to replace any portion of the amount curtailed. Section 5.5 states:

During any period of curtailment, Alcoa shall not make any market purchases from third party suppliers to replace all or any portion of the amount curtailed.

Thus, Bonneville was faced with the alternative of selling 10 MW of firm power at the IP Rate during the 18 month curtailment period, or considering other options that would include suspending the restriction under Section 5.5 of the Agreement while providing Bonneville with benefits in excess of those it would otherwise achieve if it did not waive the restriction.

On February 10, 2016, Bonneville entered into Amendment No. 2 to the Agreement which suspended operation of Section 5.5 in consideration for Alcoa purchasing 300 MW of surplus power from Bonneville at an above market price. From Alcoa's perspective, Amendment No. 2

allowed continuation of plant operations at the pre-curtailement operating level of 2.5 pot lines. Amendment No. 2 also made it possible for Bonneville to receive financial and secondary benefits that it would otherwise not have obtained. For more details regarding Amendment No. 2, see Bonneville's letter to the region dated March 9, 2016.

Because of the short duration of Amendment No. 2 Alcoa is only able to continue its current level of operations at the Intalco plant, in Ferndale Washington, through June 30, 2016. Proposed Amendment No. 3 would allow Alcoa to operate beyond June 30, 2016, until the 24 months of curtailment permitted under its contract have been exhausted on February 14, 2018, except to the extent that intervening contingencies (as defined by the Amendment) allow Alcoa to avoid exhausting all of its curtailment rights. As with Amendment No. 2 Bonneville will, in return, receive significant benefits beyond what it would otherwise receive if Alcoa actually curtailed its operations to no more than 10 MW during the same period. The terms of Amendment No. 3 and the benefits that would accrue to Bonneville are described in more detail below.

To determine whether entering into Amendment No. 3 is consistent with sound business principles, Bonneville compared the forecasted economic value of two alternatives: (1) curtailment to 10 MW IP Firm Power through the remainder of Alcoa's curtailment rights, (Alternative A); or (2) execution of Amendment No. 3 (Alternative B).

III. Structure of Amendment No 3

The structure of Amendment No. 3 involves four fundamental features that provide value to Bonneville:

- ❖ An upfront cash payment;
- ❖ An IP Firm Power Sale of 10 MW with the possibility of increasing above 10 MW under certain conditions defined by the Amendment;
- ❖ A Surplus Power Sale with an adder above a Market Index Price¹; and
- ❖ The incremental provision of Contingency Reserves.

This structure allows Bonneville to both limit risk and realize operational benefits associated with additional Contingency Reserves, Avoided Transmission and Ancillary Service Expenses, and a reduced likelihood of Oversupply Costs during the spring run-off period. The following sections describe the approach BPA took to evaluating these components and identifies other considerations in assessing the benefits and risks of Amendment No. 3. The remaining sections are as follows:

- Section IV, Description of Quantitative Benefits, describes the methodology used to evaluate tangible benefits provided by components of Amendment No. 3.
- Section V, Description of Qualitative Benefits, describes intangible benefits presented by Amendment No. 3.

¹ "Market Index Price" means the Intercontinental Exchange (ICE) Mid C Peak Day Ahead and ICE Mid C Off-Peak Day Ahead index for Heavy Load Hours and Light Load Hours. The Market Index Price shall have a floor of zero.

- Section VI, Economic Comparison of the Alternatives, presents the values of quantitative benefits for those components addressed in Section IV. These results are also further summarized in Attachment A, Economic Value of Alternatives.
- Section VII, Features of the Amendments, walks through a number of contract features in Amendment No. 3.
- Section VIII presents Bonneville's final conclusion.

IV. Description of Quantitative Benefits

The following section provides an overall description of the quantitative financial benefits Bonneville will realize from Alternative B compared to Alternative A. Bonneville has used the most recent data available to calculate the value of both alternatives. As such, this analysis identified six quantifiable benefits: 1) cash payment in partial consideration; 2) Net Benefits of 10 MW Sale at the IP Rate (IP minus Market); 3) Net Benefits of Surplus Sale (Price Adder from Market Sale; 4) savings from Avoided Transmission and Ancillary Services Expenses; 5) Oversupply Reduction Cost; and 6) additional Contingency Reserves provided at no cost. The methodology employed in evaluating these benefits is described below.

1. **Cash Payment as Partial Consideration.** Cash compensation is provided from Alcoa to Bonneville in partial consideration for Bonneville waiving its contractual right to require Alcoa to purchase 75 MW of power at the IP rate prior to Alcoa making purchases on the open market. Bonneville considers the cash payment as an essential component of the overall value of the arrangement.
2. **Net Benefits of 10 MW Sale at the IP Rate (IP minus Market).** Bonneville routinely shapes its inventory to meet the needs of its portfolio of contracts and sells its surplus inventory in the Pacific Northwest power market as described in Bonneville's BP-16 Wholesale Power Rates Administrator's Final Record of Decision. Additionally, Bonneville routinely forecasts Mid-Columbia trading hub (Mid-C) electricity prices consistent with the methodology described in the BP-16 Rates Final Record of Decision to value these purchases and sales. Bonneville calculates the net benefit of serving Alcoa at the IP rate for each month by subtracting the revenues for the same amount of power at forecasted market prices from the projected IP revenues.
3. **Net Benefits of Surplus Sale (Price Adder from Market Sale).** As part of the negotiations, Alcoa has agreed to purchase surplus power from Bonneville to supply some of its load at the Intalco Facility. The surplus power sale is shaped across the period, reflecting two different quantities during three separate time periods based on seasonal variation in Bonneville's surplus inventory. All surplus sales include a price adder of \$0.75 per MWh above the Market Index Price, which translates directly into positive net revenue regardless of market price levels.

Time Period	Volume
July 1, 2016 – March 31, 2017	25 MW
April 1, 2017 – June 30, 2017	250 MW
July 1, 2017– February 14, 2018	25 MW

- 4. Avoided Transmission and Ancillary Services Expenses.** When purchasing power, Alcoa covers the cost of transmission and ancillary services through its own transmission contracts. Wholesale electricity market prices, on the other hand, assume power is delivered by the seller to the Mid-Columbia trading hub (Mid-C); thus, the seller pays for the cost of transmission and ancillary services to that delivery point.

Power Services (PS), the organization within Bonneville that is responsible for the marketing of federal power, must pay the transmission and ancillary services costs to move surplus power to the Mid-C delivery point in order to realize the full market value for its surplus sales. PS maintains an inventory of transmission products and services to deliver the surplus power to market. However, this transmission product inventory is not sufficient to deliver all of the surplus power PS might sell under all load and resource conditions, especially during periods of high stream flows. As a result, there is a subset of load and resource conditions under which PS would incur incremental costs for transmission and ancillary services to deliver incremental surplus energy sales. The incremental transmission and ancillary services costs are avoided when Bonneville sells power to Alcoa because Alcoa contracts for its own transmission and ancillary services. The PS transmission and ancillary services expenses, both the expected expenses and their uncertainty, were addressed in the BP-16 Final Rate Proposal and are expected to be similarly addressed in each subsequent Bonneville rate proceeding.

PS valued these avoided transmission and ancillary services expenses from July 1, 2016 through February 14, 2018, using the same methodology employed in the BP-16 Final Rate Proposal to establish the total costs and risks associated with PS's inventory of transmission products and services. For this analysis, Bonneville used transmission rates established in the BP16 Final Rate Proposal and a forecast of the changes in the transmission tariff rates from October 1, 2017 through February 14, 2018. The transmission tariff rates used beyond the BP-16 rate period reflect the best estimates available at the time of this analysis.

In these computations, both fixed, take-or-pay costs and variable incremental transmission and ancillary services costs were computed under 3,200 monthly load and resource conditions that did not include augmentation purchases. The augmentation purchases were removed to reflect that under most system load and resource conditions Bonneville would not need to purchase power to serve Alcoa's IP load and surplus energy sales. Incremental transmission and ancillary services costs were computed by comparing the amount of surplus energy available to the monthly excess amount of firm transmission products in the PS inventory and applying tariff rates to the amount of surplus energy in excess of the PS transmission products inventory. For additional information regarding the computations of the Amendment No. 3, monthly transmission and ancillary services costs, refer to the footnote provided in the Economic Value of the Alternatives located in Attachment A at the end of this document.

- 5. Oversupply Cost Protection.** At times, during the spring months, Bonneville may experience a situation of generation oversupply. In particular, during the spring run-off, Bonneville seeks to avoid impacts on threatened and endangered salmon due to spilling water at federal hydroelectric projects by moving as much water as possible through turbines. This can result in generation oversupply conditions, where there are more

generators available to produce power than there is demand to use it. Especially when snow melt is high, seasonal rains continue through the spring, and wind generation in the Pacific Northwest is at high production, there is a probability that Bonneville may face additional costs to the extent it curtails wind generation to meet its hydro operations requirements and then must compensate wind generators for their lost revenue. Even though oversupply does not occur every spring, having Alcoa's load in place in the spring is good insurance for mitigating such costs should they arise.

6. **Additional Contingency Reserves.** Bonneville seeks to avoid impacts that may arise from operational disruptions by supplying Contingency Reserves from the Federal Columbia River Power System (FCRPS). To the extent possible, Bonneville tries to balance its physical operations and its ability to shift available water stored in the system to the highest value electricity price periods. With access to additional Contingency Reserves, Bonneville can reduce the amount of generation capacity set aside for operational disruptions, which then allows more generation during high power price periods. Alcoa's no cost offer to allow interruption of its Bonneville power supply in order to provide additional Contingency Reserves, creates economic value without negatively impacting operations.

V. Description of Qualitative Benefits

Qualitative Benefits are those benefits Bonneville recognizes as having a positive financial impact on the agency, whether directly or indirectly. Because they are more qualitative in nature than the benefits described in the previous section, Bonneville has elected not to place a monetary value on them at this time. Bonneville has identified three qualitative benefits: 1) Demand Shift; 2) Continued participation in Bonneville's third party supply program; and 3) Future Net Benefits.

1. **Demand Shift:** When large regional loads, including Alcoa's operate, as opposed to not operating, Bonneville will receive indirect benefits due to upward pressure on market prices. Bonneville's surplus sales will realize increased revenues because the mean value of prices for electricity in Western power markets are higher than they would be otherwise, had the Alcoa loads not consumed electricity from Western power markets. See 2009 Alcoa ROD at 44, 68–70.

In some previous benefit analyses Bonneville elected not to include Demand Shift as a contributing benefit, because there was no clear indication whether Alcoa's load would or would not continue to operate had a contract not been executed. Considering that Alcoa will be required to curtail its load significantly if Amendment No. 3 is not agreed to, Bonneville determined it would be appropriate to acknowledge the effect on the market (and potential upside benefits to Bonneville) from having Alcoa's load in the region. Although Bonneville sees value in the Demand Shift, it has elected not to include a quantitative value in this analysis.

2. **Continued participation in Bonneville's third party supply program:** Alcoa has been an active participant in Bonneville's third party supply program. Participation in the program requires that the bidder have significant electrical load that can reliably be

reduced on short notice. When more bidders can participate in the program, Bonneville benefits from the enhanced competition.

3. **Future Net Benefits:** Alcoa's IP Firm Power commitment to take-or-pay increases to 75 MW on February 15, 2018 and will continue through the remainder of the Agreement, that is, until September 30, 2022. If prices in the power market continue to remain at their current depressed levels, Bonneville could realize substantial future net benefits, provided the market for aluminum produced in the U.S. remains viable.

VI. Economic Comparison of the Alternatives

The following is a comparison of Alternative A and Alternative B using the methods referenced in Section IV of this analysis. Under Alternative A, Bonneville sells 10 MW IP Firm Power at the IP Rate from July 1, 2016 through February 14, 2018 (Remaining Curtailment Period). As Alternative B is structured:

- (a) Alcoa provides to Bonneville a cash payment in the amount of \$1.5 million;
 - (b) Bonneville sells Alcoa 10 MW IP firm power for the Remaining Curtailment Period;
 - (c) Bonneville sells Alcoa 25 MW of surplus firm power flat for the Remaining Curtailment Period (356,425 MWh);
 - (d) Bonneville sells an additional 225 MW of surplus firm power for the period beginning April 1, 2017 through June 30, 2017 ("Spring Period");
 - (e) all surplus firm power sales to Alcoa Power Market LLC, are to be priced at Market Index Price + \$0.75/MWh; and
 - (f) Alcoa provides, at no cost to Bonneville, an additional 30 MW of Contingency Reserves for the Remaining Curtailment Period, with the exception of the Spring Period.
- **Alternative A (10 MW IP Sale Only)**
 - No Cash Payment: \$0
 - Net Revenue: \$3 million (IP minus Market)
 - Avoided Transmission Cost: \$207K (when compared to a surplus sale).
 - Oversupply Reduction Cost: \$23K
 - **Total benefit: \$3,263,188**
 - **Alternative B (Long-Term Amendment No. 3)²**
 - Cash Payment: \$1.5 million
 - Net Revenue: \$3 million (IP minus Market)
 - Surplus Power Sale: \$635K net revenue
 - Avoided Transmission Cost: \$2.2 million

² Includes values from Alternative A.

- Additional Contingency Reserves: \$548K
- Oversupply Reduction Cost: \$595K in potential cost savings.
- **Total benefit: as much as \$8,554,098**

The analysis demonstrates that the expected financial benefits of Alternative B significantly exceed what Bonneville would receive under Alternative A, especially when operational benefits are considered.

Bonneville estimates the overall benefit of Alternative B minus the benefits of Alternative A to be slightly more than **\$5.29 million**.

VII. Features of the Amendments

A number of new contract features are introduced in Amendment No. 3, as well as features that will remain in effect from Amendment No. 2 and after Amendment No. 3 is executed.

1. **Suspension of Section 5.5.** In the original Agreement, Alcoa is prevented from purchasing market power from third party suppliers to replace all or any portion of the curtailed IP Firm Power. In other words, the contract is designed so that Alcoa must purchase 75 MW at the IP rate prior to turning to market purchases to operate the Intalco plant. Thus, in order to allow Alcoa to acquire any power during their 24 month curtailment period, Bonneville must first agree to suspend this provision.

The purpose of the provision is to prevent Alcoa from obtaining a windfall by accessing lower market priced power by simply triggering its right to curtail. Bonneville does not believe Alcoa is using its right to curtail simply to leverage access to lower power prices. In this case, Alcoa's motivation is to avoid suspending production at its plant due to extremely unfavorable market conditions in the aluminum industry. Bonneville understands Alcoa's business predicament of needing to respond to deep and continuing unfavorable conditions in the global aluminum market and sees no reason not to facilitate Alcoa's desire to continue operations, as long as doing so results in greater benefits to Bonneville than would be obtained otherwise.

Thus, in these circumstances, it is reasonable, given Bonneville's expected economic benefits under proposed Amendment No. 3, to suspend Section 5.5's restriction and allow Alcoa to make market purchases, as needed, to maintain operation of the Intalco Facility. Amendment No. 3 clarifies that Alcoa will have no remaining rights to curtail after February 14, 2018 (provided Trigger Event does not occur, as described in Section 4.5.2 of Amendment No. 3) and will then be required to purchase 75 MW of Firm Power.

2. **Payment in Partial Consideration for Suspending Section 5.5.** As part of the overall benefits supplied to Bonneville for suspending Section 5.5, Alcoa has agreed to provide a cash payment of \$1,500,000 to Bonneville. This amount shall be due no later than the due date specified on Alcoa's June 2016 invoice and will not be counted as an offset against Alcoa's Make Whole Amount obligation revised in Amendment No. 2.

3. **IP Firm Power Increase During Curtailment – Wind Fall Protection.** Alcoa and Bonneville understand the importance of aluminum prices to the viability of Alcoa's smelter. As such, Alcoa agrees to increase the level of IP Firm Power it will purchase during the curtailment period if Alcoa sees increased revenue due to aluminum price increases. If the London Metal Exchange Price of aluminum rises to a specified price per ton, then the power sale will revert to an increase of IP Firm Power. The requirements placed on Alcoa to increase the level of IP Firm Power during curtailment are specified in Section 2 (a) of Amendment No. 3. Although this feature can provide additional value with little to no risk, it was not a determining factor in Bonneville's negotiations with Alcoa but simply a way of insuring that the purpose of Section 5.5 of preventing a windfall, as stated previously, would be preserved in the event of unexpected events in the aluminum market.
4. **Additional Contingency Reserves.** The original Agreement requires Alcoa to provide Contingency Reserves in a manner consistent with the Minimum DSI Operating Reserve – Supplemental specified Exhibit H. Section 2(d) of Amendment No. 3 requires Alcoa to provide additional Contingency Reserves on top of its current obligations under the Agreement. The level of additional Contingency Reserves provided by Alcoa will be 30 MW, which will be supplied during certain periods of the amendment. In the event Alcoa fails to meet this obligation, then Bonneville shall determine the value of those reserves for the purpose of compensating Bonneville for any lost value.
5. **Surplus Power Sale.** Alcoa agrees to purchase 250 MW of Surplus Power from Bonneville in the Spring Period. This Surplus Power Sale contributes benefits in the form of 1) price adder over Market Index Price, 2) oversupply protection, and 3) Avoided Transmission and Ancillary Services Expenses.
6. **Credit Assurance.** Alcoa will continue to provide current credit assurance arrangements through the duration of the Amendment No. 3 in the form of an ongoing letter of credit. Bonneville can also seek other performance assurance if Alcoa's viability becomes unsatisfactory.
7. **Make Whole Amount:** The Make Whole Amount obligation established in Amendment No. 1 and revised in Amendment No. 2 will remain unchanged.

VIII. Environmental Effects

BPA has reviewed the amendment for potential environmental effects that could result from its implementation, consistent with the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, *et seq.* Amending the long-term firm power sales contract with Alcoa would result in BPA continuing to provide power to Alcoa's Intalco aluminum-smelting facility that is already in existence, currently operating, and already served by BPA. BPA expects to provide all power under the contract amendment from existing generation resources that would continue to operate within normal operating limits. BPA would continue to supply this power over existing transmission lines that connect Intalco to the electrical transmission system, thus no physical changes to the transmission system would occur. In addition, amending the contract would not

result in a change in Intalco's current operations in such a way that environmental impacts would significantly differ from the current situation.

For these reasons, BPA has determined that the amendment falls within a class of actions excluded from further NEPA review pursuant to U.S. Department of Energy NEPA regulations, which are applicable to BPA. More specifically, the Amendment falls within Categorical Exclusion B4.1, found at 10 CFR 1021, Subpart D, Appendix B, which provides for the categorical exclusion from further NEPA review of actions involving "[e]stablishment and implementation of contracts, policies, and marketing and allocation plans related to electric power acquisition that involve only the use of the existing transmission system and existing generation resources operating within their normal operating limits." BPA has prepared a Categorical Exclusion Determination that has been posted at BPA's website, which is available at: <https://www.bpa.gov/efw/Analysis/CategoricalExclusions/Pages/default.aspx>.

IX. Evaluation of Comments

General Overview: In summary twelve parties expressly supported the proposed Amendment No. 3, noting that it would support the continued operation of the Intalco plant which would strengthen the local economy by providing family wage jobs. Included in those twelve were the Port of Bellingham, Whatcom County Treasurer, and the Washington State Department of Commerce. Also in support of Amendment No. 3 were the Industrial Customers of Northwest Utilities, and Alcoa. From the public utility industry groups, Pacific Northwest Generating Cooperative (PNGC) indicated it "cannot explicitly endorse the amendment," but "does not oppose BPA entering into Amendment No. 3." Public Power Council (PPC) indicated there is an "acceptably low level of risk" and "PPC does not object to the proposed Amendment No. 3." Northwest Requirements Utilities (NRU) said "NRU views Amendment No. 3 as a way for Bonneville to make an unappealing situation a bit better."

Summary and Evaluation of Comments While none of the comments advocated that Bonneville not enter into the transaction, this section responds to the issues that were raised in connection with proposed Amendment No. 3.

Whether more flexibility is given to Alcoa under its power purchase contract than is given to preference customers under their contracts, even though both have take-or-pay contracts.

In its comments, NRU spoke to the issue of Bonneville being able, in this situation, "to make an unappealing situation a bit better," and at the same time expressed some frustration regarding the state of its own membership more generally. NRU acknowledges that "Alcoa is under financial pressure given the world market for aluminum," but states further that Alcoa is not unique in this regard.

[M]any of NRU members are located in economically depressed areas that are struggling to recover from the recession and provide living wage jobs. Unlike Alcoa, however, NRU members have “take or pay” contracts that they cannot renegotiate as economic conditions change. Given that Bonneville’s Tier 1 rate is currently \$10+ over market, it would certainly be more economic for preference customers to displace a portion of their Tier 1 power with market priced power. Unlike with Alcoa, however, Bonneville does not permit this for its preference customers.

NRU at 1.

NRU does not object to Bonneville entering into Amendment No. 3 but states that “we must use this opportunity to once again point out the importance of Bonneville’s cost competitiveness.” NRU urges Bonneville to “find ways to adapt to the changing and dynamic energy markets in the west in order to maintain its competitiveness well into the future.” NRU at 2.

Bonneville’s Response: Bonneville appreciates NRU’s input and its focus on the future. Bonneville, as NRU recognizes, must be diligent in its efforts to respond to challenges in the ever-changing electric industry and find ways to continue to bring value to the region and its customers. Organizations like NRU are instrumental in assisting Bonneville find ways to meet those challenges. Bonneville is also sympathetic to the plight of retail consumers living in economically depressed areas that have not fully recovered from the recession and always remains open to suggestions about how it might be able to assist in mitigating those continuing conditions. Bonneville looks forward to a continuing dialogue in that regard.

Bonneville also appreciates NRU’s support for entering into Amendment No. 3. When the Alcoa Power Sales Contract was negotiated, the Equivalent Benefits Test showed that the bulk of the value Bonneville would accrue occurred during the first three to five years of the contract. For that reason, Bonneville was willing to provide curtailment rights for that period but only if they were subject to payment of liquidated damages. For later years, Bonneville was not as concerned with obtaining liquidated damages in exchange for curtailment rights and, therefore, it did not require payment of liquidated damages. That arrangement was a reasonable and fair trade-off at the time it was negotiated.

Since 2011, under its contracts with Alcoa, Bonneville has achieved net revenue in excess of \$130 million over what it would have realized with a comparable sale into the wholesale market. Those revenues have benefitted all Bonneville customers including the membership of NRU. At the same time, the market price for electrical power has remained lower than Bonneville anticipated when it negotiated the Alcoa Power Sales Agreement, contrary to the expectations of both Alcoa and Bonneville. For that reason, Alcoa provided a notice of termination of its contract with Bonneville pursuant to its terms. The parties were able to negotiate an arrangement that was more favorable to Bonneville than the termination, which would have required payment of liquidated damages for a period of one year for any power not purchased under the “take or pay” provisions.

Now, Alcoa has exercised its curtailment rights. Bonneville has been able to negotiate an arrangement that is more favorable to Bonneville than curtailment. NRU recognizes that such transactions should be supported because they benefit Bonneville, its preference customers, and Alcoa alike. The terms of the Power Sales Agreement with Alcoa are different, as noted by

NRU, than contracts with preference utilities. As a direct service industrial (DSI) customer, Alcoa's Intalco plant operations can be shut down by choice if it is in Alcoa's economic interest to do so, including when continued plant operations would result in losing money. DSI contracts have historically recognized that fact and terms like curtailment rights have long been a feature of such agreements. Historically, as pointed out elsewhere, Bonneville has been able to take advantage of the ability to interrupt DSI loads. Thus, the terms and trade-offs are distinctly different when it comes to preference customer utilities in this regard, which have an obligation to serve their retail load and no ability to curtail or interrupt their loads in the same sense as a large industrial facility like Intalco.

Despite these differences, Bonneville is always receptive to win-win situations. From Bonneville's standpoint, the bottom line with respect to its contract actions with Alcoa is that it has, in recent years, provided additional revenue and supported lower rates without jeopardizing Bonneville's cost recovery and Treasury repayment obligations. From the standpoint of operating consistent with sound business principles, it is hard to envision a situation where Bonneville would be particularly averse to proposals from any source that promotes those objectives consistent with Bonneville's other statutory obligations.

**Whether the public comment periods were adequate both with respect to
Amendment No. 2 and Amendment No. 3.**

Amendment No. 2

PPC makes a number of observations regarding the public process made available for Alcoa Amendment No. 2:

Amendment No. 2 was negotiated between Alcoa and BPA without public input or process. A full description of the terms and BPA business rationale for Amendment No. 2 was not released until several weeks after the amendment was signed. Some terms of the agreement were never publicly released by BPA. Our interpretation of the judicial guidance on the issue is that BPA has an affirmative obligation to demonstrate a sound business case in serving DSI customers, and the status of economic conditions at any particular point in time does not lessen that requirement. A retrospective justification, as in the case of Amendment No. 2, does not meet this standard.

PPC Comments at 2.

PPC notes further that Bonneville stated in documents posted after the Amendment No. 2 was executed that "it was not feasible to provide a public comment period due to time constraints" because Bonneville "needed to act quickly due to the approaching curtailment date to obtain the benefits created by this transaction." *Id.*

PNGC makes the same point in its comments: "BPA's history with Alcoa suggests that Alcoa's interests and demands have a tendency to take precedence over BPA's business interests. This again seems to be the case as indicated by the rushed process BPA underwent for Amendment No. 2 to the Alcoa Contract, where the terms and documentation setting for BPA's interest in the amended contract were not made public until after the amendment had been executed."

Bonneville's Response: With respect to Amendment No. 2, Bonneville stands behind its earlier statement that time constraints precluded Bonneville from conducting a public process. Conducting public processes to receive input from other parties who have an interest in Bonneville dealings with Alcoa is always helpful to Bonneville but, in cases like Amendment No. 2, it was not practical. In the case of Amendment No. 2, it was important to reach closure prior to any necessity for Alcoa to reduce production for the simple reason that such actions would have been likely to preclude any future opportunities for Bonneville to achieve greater contractual benefits than it would otherwise. The reason for that, as Bonneville recognizes, is the far reaching impact of curtailing a smelter operation, including the permanent loss of a skilled workforce, and expenses associated with restart.

These same reasons carried over to the urgent treatment BPA gave to Amendment No. 3. There was a real probability the Intalco smelter would not restart in February 2018 if Amendment No. 3 not executed. With the smelter curtailing to 10 MW on July 1, 2016, the workforce at the facility would in turn be dramatically reduced, forcing the lay-off of hundreds of employees. Bonneville recognizes that a lay-off of this magnitude, and for this extended time period, would make it extremely challenging to hire and train a workforce for the smelter's restart. Many of the experienced employees would likely find or attempt to find new employment in other industries, either locally or outside of the area. Furthermore, the cost to Alcoa of restarting after either a full or partial shutdown would have been likely to make any options other than curtailment to no more than 10 MW cost prohibitive for Alcoa. Bonneville's experience and research confirmed this economic reality. Simply put, in the stream of commerce, there are occasions when time is of the essence and this was one of them.

It should be remembered that Bonneville conducts business on a daily basis, both in the power market as well as contracting for goods and services to keep the agency functioning. Different situations call for different treatment. While Bonneville's preference with respect to DSI contracts is to ask for public comment, it is situational and there are times, like consideration of Amendment No. 2, when business needs combined with the clear benefits of entering into a transaction expeditiously, make a public process impractical.

In addition, as a result of being unable to conduct a public process, Bonneville made efforts to inform customers of its decision and to provide a summary of the economic justification for doing so. Bonneville was not attempting to create an administrative record for the purpose of Ninth Circuit litigation but was instead trying to be transparent in conveying relevant information to its customers.

As to the suggestion that there was not full disclosure of the terms of Amendment No. 2, the Amendment itself was posted in its entirety. With respect to the trading floor confirmation that was necessary to implement Amendment No. 2, a copy of that was shared with representatives of PPC, PNGC, and NRU at a meeting held on March 23, 2016. At Alcoa's request, one piece of data was redacted, the LME trigger price that would require Alcoa to purchase power at a higher price. Alcoa expressed its belief that the information was proprietary and, if disclosed, could cause the company competitive harm. Consistent with Bonneville's responsibilities under the Freedom of Information Act (FOIA) and the Trade Secrets Act, as well as internal policies regarding trading floor disclosures of information, Bonneville complied with Alcoa's request.

In order to obtain the one redacted piece of information not disclosed, PPC and others retain the option of filing a request for information under the Freedom of Information Act. In that event, Bonneville would follow the FOIA procedures and notify Alcoa of the request, at which point Alcoa would have the option of trying to make a case that the requested information should not be subject to disclosure under Exemption No. 4. The process would then proceed according to the requirements of the law. That is the proper course in a situation like this, where the public has an interest in disclosure but a third party providing information to the government has an equally important interest in trying to protect information that it deems confidential or proprietary in nature.

Amendment No. 3

With respect to the public process held to receive comments on Amendment No. 3, the PPC is dissatisfied with the ten days permitted for comment:

The process around the release of proposed Amendment No. 3 is an improvement relative to Amendment No. 2. PPC appreciates BPA's efforts to make public all relevant terms of Amendment No. 3 rather than referring to a confidential confirmation agreement. Still, ten days is a burdensome timeline to analyze data and synthesize meaningful comment on a complicated amendment to an already dense contract that is subject to numerous prior amendments. We encourage BPA to allow more time for future public comment.

PPC at 2.

PNGC shares this view: "Now, for Amendment No. 3, BPA is offering a public comment period, although it is frustratingly short and makes it difficult for BPA's customers to offer substantive feedback. Once again, it is our understanding that Alcoa's desired timeline and internal business process preferences dictated the time of the negotiation and limited the opportunity for a meaningful comment period for BPA's other customers." PNGC at 1.

Bonneville's Response: When possible, Bonneville is responsive to requests for additional time to comment on matters of interest to Bonneville's customers and the general public. In this case, ten days was the amount of time that could be accommodated given the timeline available for deciding whether or not to enter into the Amendment no later than the end of this month. This relatively short timeline was the reason Bonneville made a point of having two discussions with representatives of Bonneville's preference customers prior to the opening comment period to provide updates on the progress of negotiations with Alcoa. At the second meeting, Bonneville was able to outline the general contours of what eventually became proposed Amendment No. 3. There were no changes when the proposal was issued.

It is true, as PNGC suggests that the schedule has been tightened in large measure by business exigencies faced by Alcoa with respect to providing notice to employees of any impending cut backs, as well as procurement of raw materials. However, Bonneville accommodated the needs of Alcoa since entering into this amended contractual arrangement provided positive benefits to Bonneville and its other customers. Moreover, a refusal by Bonneville to maintain this admittedly tight schedule could have jeopardized obtaining the benefits of Amendment No. 3, as discussed more fully above, because any steps by Alcoa to curtail its production would have had immediate consequences by making curtailment the more likely alternative.

Bonneville's own analysis and internal processes were subject to the same kinds of time pressure. Given the circumstances, ten days seemed adequate for getting comments on the single issue of whether proposed Amendment No. 3 provides greater benefits—and represents a sound business decision—as opposed to the other option of receiving the IP rate for no more than 10 MW during the same time period. There were no other options available for consideration and failure to reach a decision on Amendment No. 3 by the end of April would have placed even those benefits in jeopardy by forcing Alcoa to take actions toward curtailment that could not be reversed in time to preserve the benefits of that transaction.

All commenters recognized Amendment No. 3 provides various types of benefits to Bonneville, to Alcoa, to Bonneville's preference customers, and to the public at large. All have registered, to one degree or another, support for Bonneville entering into Amendment No. 3. In light of that dynamic, and that the Amendment does not appear to be particularly controversial, any lingering questions revolve around whether Bonneville assigned the proper value to various components of the transaction. There is general consensus that benefits will be obtained and no substantial risk that those benefits will not be obtained has been identified. Nor has anyone suggested a reason why Bonneville should forego the benefits that will accrue from entering into Amendment No. 3. Therefore, it is challenging to see how a longer comment period would have led to a different result.

Whether Bonneville is required to show it obtained the “best benefit of its bargain” under the terms of Amendment No. 3 and has adequately evaluated the risks and benefits.

PPC notes that Bonneville's letter requesting comments states that “Commenters should bear in mind that there are only two alternatives under consideration: proposed Amendment No. 3 or Alcoa Intalco operations to *[sic]* 10 MW during the period covered by Amendment No. 3.” PPC goes on to maintain:

This characterization of the possibilities as having only two choices is inappropriately oversimplified. The proper inquiry for a business case for this amendment should be whether, under the circumstances, BPA is obtaining the best benefit of this bargain with Alcoa. This should include a full analysis of all risks and benefits and an explanation of why the benefits outweigh the risks.

PPC at 2.

Explaining further, PPC states that Bonneville “presents no analysis of counteracting risks and offers no insight into why BPA believes that this is the best possible bargain it could strike with Alcoa.” PPC argues that such insights would be helpful to PPC's evaluation even while it concludes that Amendment No. 3 “would provide a modest amount of benefit relative to BPA's presented alternative of status quo [and] the proposal appears to have a tolerable degree of risk.”

In a similar vein, PNGC asserts that Bonneville was remiss in limiting comments to the two available options:

This is a false choice that ignores the universe of options available to BPA when it was negotiating with Alcoa for revised terms. BPA should have provided justification for

why the terms of Amendment No. 3 were deemed to be the greatest value to BPA and its preference customers given the circumstances. Stated another way, why should customers accept that Amendment No. 3 did not leave significant potential value on the table? Amendment No. 3 provides Alcoa with the highly beneficial ability to go to market for the bulk of its power needs. It is unclear whether BPA received sufficient consideration in return for granting that flexibility to Alcoa.

PNGC at 2.

Bonneville's Response: Bonneville believes that it has more than adequately evaluated the risks and benefits of this transaction. There is not a "universe of options available to BPA." There are two, as indicated in the announcement opening the public comment period. One option was that Bonneville could simply accept Alcoa's curtailment to 10 MW, an option that Alcoa had a contractual right to take. In that case, Bonneville would receive, at most, revenues at the IP rate for no more than 10 MW for the duration of the curtailment. The other option was to negotiate an amendment to the contract that would allow Bonneville to obtain significantly more benefits than would otherwise accrue. Bonneville has achieved that goal by proposing Amendment No. 3. There is not an array of amendment options from which Bonneville could pick and choose.

Bonneville has fully evaluated the risks and explained why the benefits outweigh those risks. Just as with the curtailment option, Bonneville will receive revenues at the IP rate for 10 MW of load for the duration of the Amendment. In addition, Bonneville will receive a cash payment of \$1.5 million and other assorted benefits bringing the net value over the curtailment option to \$5.29 million. At the same time, Bonneville preserves the expected value of the underlying contract because the Make Whole Amount³ remains unchanged and its security continues to be maintained by a letter of credit.

In sum, at the end of the term of Amendment No. 3, Bonneville will be significantly ahead financially as opposed to the curtailment option and the value of the underlying contract remains unaffected. At that time, Bonneville hopes and expects that Alcoa will purchase 75 MW at the IP rate. If not, it is possible that Alcoa could terminate the contract. If that happens, Bonneville will receive liquidated damages, as specified, for one year, and it will still receive any remaining amount due on the Make Whole Amount.

It is not clear to Bonneville what financial risk Amendment No.3 creates. The facts show Bonneville, Alcoa, the preference customers, and the general public are better off.

It is also unclear how PPC and PNGC has asserted a "greatest value" standard that must be attained before Bonneville should execute a contract. From a practical standpoint, these comments appear to impose a highly subjective and amorphous standard. In a setting where the terms of a commercial transaction are being negotiated, it is typically impossible to ascertain whether one party or the other has achieved the "greatest value" it could have obtained. Bonneville does not approach negotiations from that perspective. Instead, Bonneville evaluates the dynamics at play, both with respect to the transaction at hand and for the longer term, and

³ See Amendment No. 2, Section 2(a), for Make Whole Amount description.

sets its negotiating objectives based on realistic parameters establishing the level of benefits that are possible and necessary to obtain. Bonneville believes this approach assures that its decisions are consistent with sound business principles. Bonneville also sees its approach as a far more realistic way of achieving the most value for the agency and its customers both on a transactional basis and for the longer term. In this instance, Bonneville is satisfied with the level of benefits that it achieved for its own business needs and for the benefit of its customers. The negotiators on both sides of the table took strong positions and both were able to emerge with sufficient value to endorse entering into Amendment No. 3. As to the longer term, Bonneville's commercial relationship with Alcoa has resulted in value beyond expectations during recent years and Amendment No. 3 provides a basis for optimism that the underlying contract will continue to provide value through 2022.

Why were the economic benefits for Amendment No. 2 and Amendment No. 3 so similar.

PPC and PNGC questioned why Amendment No. 2 and Amendment No. 3 had similar economic value although the contracts differ greatly in term duration. PNGC specifically stated that "BPA did not provide any explanation for why Alcoa is receiving a substantially longer allowance to go to market for approximately the same compensation as the far shorter Amendment No. 2." PNGC at 2.

Bonneville's Response: In negotiating the Amendment No. 3 with Alcoa, Bonneville considered the value of the arrangement in relation to the "allowance" provided to Alcoa. Providing the "allowance" creates no financial cost to Bonneville, but allows Bonneville to realize real financial benefits. In both Amendment No. 2 and Amendment No. 3, the bulk of the value comes from attributes of the surplus power sale, and those attributes provide the most value over the spring period. Spring provides the greatest opportunity to reduce Transmission and Ancillary Service Expenses, and Oversupply Costs. The time frames encompassed by both amendments each only include one spring season. In order to capture the value of the spring period in Amendment No. 3, it was necessary to provide the "allowance" over the entire 19 ½ month period. A major contributor to the relatively lower value of Amendment No. 3 compared to Amendment No. 2, is the refueling outage at CGS during the spring period of 2017 which wasn't a factor in spring of 2016. During spring of 2017 Bonneville will have relatively less surplus power to market (normalizing for water conditions) than is the case in for spring of 2016. Less surplus power translates into fewer opportunities to reduce Bonneville's incremental transmission and ancillary service expenses.

Amendment No. 3 also includes less overall MW hours in the surplus power sale (847,825 MWH) than in Amendment No. 2 (986,100 MWH). This in turn reduces the savings that can be expected from Avoided Transmission and Ancillary Service Expenses since there are fewer opportunities to avoid incremental transmission purchases. The market adder in the surplus power sale was another factor explaining the overall value. The adder used in Amendment No. 3 is approximately half the size of the adder in Amendment No. 2. The oversupply value in Amendment No. 3 was also less than Amendment No. 2 because of the lower MW hour amount of the surplus power sale and the lower expected generation levels. The assumption used to

estimate the savings from reduced oversupply cost in Amendment No. 3 was also much more conservative than in Amendment No. 2 because of the higher uncertainty in water conditions of the 2017 Spring period, versus the 2016 Spring period.

Whether or not Future Net Benefits should be included in the analysis.

PPC and PNGC both challenged the analysis's acknowledgement of Future Net Benefits as a qualitative benefit saying that Alcoa's take-or-pay obligation increases to 75 MW of IP Firm Power under both alternatives. PPC stated in its comments "BPA's letter also erroneously cites 'Future Benefits' as a qualitative feature of the proposed amendment." PNGC indicated that "Unless there is more to this analysis than Bonneville provided in its letter, the inclusion of this item as a benefit is misplaced."

Bonneville's Response: Bonneville recognizes that Alcoa is contractually required to purchase 75 MW of IP Firm Power after February 15, 2018. The reason Bonneville included this as a Future Net Benefit is because there is a substantial likelihood the Intalco smelter will not continue operation in 2018 if Amendment No. 3 is not executed. With the smelter curtailing to 10 MW on July 1, 2016, the workforce at the facility would in turn be dramatically reduced, forcing the lay-off of hundreds of employees. Bonneville recognizes that a lay-off of this magnitude, and for this extended time period, would make it extremely challenging hiring and training a workforce for the smelter's restart. Many of the experienced employees are likely to seek or find new employment in other industries, either locally or outside of the area. Furthermore, the start-up cost associated with a smelting operation that has been idle for almost 20 months would likely be substantial. These issues lead Bonneville to believe restarting the smelter at the end of a 19 ½ month shutdown would be challenging, thereby reducing the likelihood of Bonneville realizing the Future Net Benefits of the 75 MW IP sales. Because this is difficult to quantify, Bonneville considered this on a qualitative basis rather than assigning a monetary value.

Whether Oversupply Reduction Cost should be considered in economic analysis.

PPC expressed concern about the inclusion of \$570,000 of net benefits from potential Oversupply Reduction Cost, stating that this quantitative benefit is based on arbitrary assumption. "PPC is concerned about the inclusion of approximately \$570,000 of net benefits from 'potential' oversupply cost reductions as a quantitative benefit." PPC furthers explains, "There is no analysis of how this represents expected value of oversupply cost reduction and is based on a variety of apparently arbitrary assumptions."

PPC at 3.

Bonneville's Response: The incidence of oversupply is largely dependent on prevailing hydrological conditions and the specific characteristics of the spring runoff. The potentially high degree of correlation in these conditions means that oversupply costs, in any given year, are

likely to be very small (i.e., zero) or could potentially be quite large. Recognizing the potential for such costs to be significant, Bonneville felt that it would be inappropriate to exclude it from the analysis as a tangible benefit (i.e., assign a benefit of zero). Similarly, given the current uncertainty regarding hydrological conditions in spring 2017, Bonneville also felt that attributing a very large value would also be disingenuous. To strike a balance, Bonneville made a reasonable, conservative assumption regarding the total number of hours of oversupply avoided. The estimate assumed 36 hours (9,000 MWh) of avoided oversupply. Compare this to 208 hours of Variable Energy Resource (VER) Environmental Redispatch (97,557 MWh) in 2011; 81 hours (49,654 MWh) of VER Oversupply Management in 2012; and zero hours from 2013-2015 (<https://www.bpa.gov/Projects/Initiatives/Oversupply/Pages/default.aspx>)

Whether Amendment No. 3 should include conservation funding and strategies.

Jeff Aslan from Sustainable Connections inquired why the proposed Amendment No. 3 excluded support in the form of conservation funding and strategies at the Intalco plant. Specifically Aslan writes, “one thing that seemed missing from the proposed amendment was any mention of energy conservation funding or strategies that would serve to reduce the plant's operating costs, reduce the load that BPA would need to serve, and reduce greenhouse gas emissions.” (*Alcoa* 316 - 0004).

Bonneville’s Response: While Bonneville supports and values conservation in the region, Bonneville does not have a program to support DSI energy efficiency at this point. Energy efficiency achievements under Regional Dialogue contracts (or with reserved power entities) serve to reduce the Administrator’s load obligation. Since the mid-2000’s Bonneville has not pursued conservation savings from its DSI customers given the uncertainty over whether the Administrator would even offer them power sales contracts. Bonneville has the authority, but not the obligation, to offer power sales contracts to serve DSIs. Given this uncertainty, Bonneville is not extending offers to acquire conservation from Alcoa.

X. Conclusion

Bonneville’s analysis indicates that the agency will obtain greater value by entering into Amendment No. 3, as opposed to adopting the alternative of receiving IP revenues for a 10 MW sale during the period of curtailment. For this reason, Bonneville has determined that entering into Amendment No. 3 is consistent with sound business principles and is in the best interests of the agency.

Attachment A

Economic Value of Alternatives

Quantitative Direct Financial Benefits	Alternative A (10 MW IP Only)	Alternative B (Amendment No. 3)	Incremental Value of Alternatives B
IP Sale Net Revenue	\$3,032,715	\$3,032,715	\$0
Cash Payment	\$0	\$1,500,000	\$1,500,000
Market Sale	\$0	\$635,869	\$635,869
Avoided TX Purchase	\$207,576	\$2,241,548	\$2,033,972
Oversupply Reduction	\$22,897	\$595,316	\$572,419
Contingency Reserves	\$0	\$548,650	\$548,650
Total	\$3,263,188	\$8,554,098	\$5,290,910
<p>Note 1: IP Sale Net Revenue refers to revenue above the value of the power if it were sold at the market price. Market value assumes forward market settlement prices as of 3/7/2016.</p> <p>Note 2: Market Sale estimate based on 25 MW sale for the period covered by Amendment No. 3, plus an additional 225 MW in the calendar year 2017 Q2 period. Value based on the \$0.75/MWh adder specified in Amendment No. 3.¹ Current internal studies indicate Bonneville is surplus all year at the median, as well as under a variety of water conditions, load conditions, and thermal generation outage scenarios.</p> <p>Note 3: FY16 inventory numbers based on FY16 Q2 Financial Review numbers using HOSS 16 Study; FY17 inventory numbers based on BP16 Rate Case values adjusted from 75 MW to 10 MW of Alcoa IP load and augmentation purchases removed; FY18 inventory values based on 2015 White Book vintage data adjusted from 75 MW to 10 MW of Alcoa IP load and augmentation purchases removed; FY16 and FY17 transmission rates based on BP16 rate case values; FY18 transmission rates are based on internal long-term transmission rate forecast made at the time of the FY16 IPR2 process.</p> <p>Note 4: Oversupply Reduction value assumes 9 days of oversupply during the April-June period, in graveyard hours only, with cost of \$65/MWh. The \$/MWh cost of oversupply is derived from a polynomial curve approximation of the oversupply cost curve; actual costs of oversupply will vary widely with hydrological conditions and geographic concentration of wind generation at the time oversupply conditions occur.</p> <p>Note 5: Contingency Reserve value estimated as potential additional energy shaping capability in months outside of calendar year 2017 Q2. Assumes forward market settlement prices as of 3/7/2016.</p>			

Attachment B

Customer Comments

Comment Number	Comments
Alcoa316 0002	<p>It is imperative for the health of our communities that Alcoa be able to continue operations in Whatcom County. Economic Health: The jobs provided allow families thrive in this area. The benefits provided to workers keep them and their families healthy, while contributing to the availability of various types of health care facilities that are used by all residents. In addition the money earned by these employees radiates out into the community benefitting thousands of individuals and businesses. Social: Historically, families with a sound financial base function better. This is an important value in our community. Community: Alcoa and their employees contribute in the thousands of dollars to their communities through grants and volunteer efforts helping the less fortunate groups in the community. Over the course of BPA's history they have endeavored to better the communities they serve; keeping a major employer and contributor in Whatcom County this is a valuable and constructive way to continue that legacy.</p>
Alcoa316 0003	<p>I encourage the completion of this contract which will keep the Intalco Ferndale, WA facility operating into 2018. This facility has provided solid family-wage jobs for Whatcom County for the past 30-plus years. Continuing to provide these jobs is good for people and our County.</p>
Alcoa316 0004	<p>My name is Jeff Aslan. I'm a resident of Bellingham and my company, Sustainable Connections, was hired as a consultant by ALCOA to perform an energy audit on the Ferndale facility in 2015. Let me start by saying that Alcoa is a great asset to our community, and this proposed amendment to Alcoa's power contract is a great step towards ensuring the future viability of the plant. While I support efforts to find terms and prices on a power contract that will allow Alcoa to operate at present level, one thing that seemed missing from the proposed amendment was any mention of energy conservation funding or strategies that would serve to reduce the plant's operating costs, reduce the load that BPA would need to serve, and reduce greenhouse gas emissions. When I asked BPA staff about the availability of financial incentives for energy efficiency measures at the plant, the response was that there were none available. Nothing was available from the State either. Yet we noticed there were many low-hanging fruit efficiency measures just from our limited time spent reviewing plant operations and building energy systems. Our experience has been that having incentives available for energy efficiency can make them far more appealing to customers. This proposed amendment is the perfect opportunity to address energy efficiency at the Intalco plant. It would benefit Alcoa by reducing operating costs at a time when market conditions necessitate cost reductions. It would benefit BPA and ratepayers/taxpayers by reducing the need for expanded generation and transmission infrastructure. Energy efficiency has proven time and again to be the lowest cost resource as demonstrated in the Northwest Power Coordinating Council's recent Seventh Power Plan. I ask that you consider a provision in the amendment to address energy efficiency at the plant that would benefit Alcoa, BPA, and ratepayers. Sincerely, Jeff Aslan Energy Program Manager Sustainable Connections</p>
Alcoa316 0005	<p>I would like to encourage BPA to work with Intalco to find a power agreement that ensures the ongoing operation of the plant through these times of uncertain aluminum world market prices. It would be a good allocation of resources to do so. Whatcom County will do what it can to continue to support this key industry that provides hundreds of living-wage jobs in our community, and appreciates your willingness to support it too.</p>
Alcoa316 0007	<p>I am in support of this agreement. My husband works at Intalco and our family depends on this job. Plus they help the county and Economy by providing family wage jobs.</p>

Attachment B

Customer Comments

Comment Number	Comments
Alcoa316 0008	The Washington State Department of Commerce supports Amendment 3, the proposed agreement reached by Bonneville Power Administration and Alcoa to keep operations open until 2018. The deal strengthens the surrounding communities by preserving a significant regional employer that directly employs 465 households. Back in early January, Ferndale's Intalco smelter seemed ready to follow the trend of other plant closures across the country. Alcoa's operations faced difficult market conditions that reduced the profitability, and the company prepared to taper off production and close operations until conditions improved. Rather than accept the fate of other smelters, the parties' agreement gives Alcoa short-term flexibility to maintain Intalco operations at 80 percent capacity while the parties take time to craft a long-term solution. This proposed Amendment 3 not only provides benefit to Alcoa and workers in Whatcom County but it also is a fair and reasonable agreement for the Bonneville Power Administration and all of its other power customers in Washington and the Pacific Northwest.
Alcoa316 0009	To Whom it May Concern: The Local Alcoa/Intalco team is top notch. They consistently look for and find ways to be more competitive financially, find all feasible ways to reduce negative environmental impact (energy, water, stormwater, etc.) and contribute to the surrounding community. We sure appreciate BPA's efforts to structure an energy deal that benefits both parties. Nice work. Derek Long Executive Director, Sustainable Connections
Alcoa316 0010	We would encourage acceptance of Proposed Amendment No.3 for Alcoa Intalco. At a minimum, approval of this amendment will provide the opportunity for hundreds of jobs with salaries to provide a meaningful impact on the area's economy. As an additional value to the community, Alcoa and its employees contribute much to the quality of life in the area through their employee volunteer activities and funding support. Failure to take every opportunity to permit this company to continue to operate at the highest level possible will have a greater impact on the community than losing the jobs identified.
Alcoa316 0011	The agreement with BPA and Alcoa is a good agreement for BPA, Alcoa, the community, the workforce and their families. This agreement will provide stability to the power grid, stability for working families, and stability to the community. I support the agreement with BPA and Alcoa.
Alcoa316 0012	Greetings, In these troubling times it's nice to see something positive happening in this community. The folks at Alcoa Intalco Works are working hard to reduce costs and make their Smelter as efficient as possible. This restructured power agreement is a win win for everyone. Intalco has for over 40 years donated millions of dollars and volunteered thousands of man hours to better this great Pacific Northwest community. By passing this Amendment we keep alive the hopes and dreams of the whole Whatcom County Community!

Attachment B
Customer Comments

Comment Number	Comments
Alcoa316 0013	<p>On behalf of the Port of Bellingham I am expressing our support for "Proposed Amendment No. 3 to Alcoa Inc., DSI Contract." BPA and Intalco's effort to work together and forge a power agreement to allow the continued operation of the smelter is welcome news. As a special purpose municipality the Port serves the essential transportation and economic development needs for Whatcom County. In 1966 the Port played a key historic role to support the expansion of the smelter by selling surplus property and structures to Intalco at its present location. Since then the facility has grown and provides 465 living wage jobs to residents of the county. Each of those jobs supports around two other local jobs. In addition, Washington State's commitment of \$3 million for on-site worker training and skills enhancement will ensure a qualified,productive workforce through the next two years and beyond. The power agreement and workforce investment will help our smelter retain a competitive position in a challenging market. Thank you again for your consideration. Rob Fix, Executive Director</p>
Alcoa316 0015	<p>As Whatcom County Treasurer, I am expressing my support for "Proposed Amendment No. 3 to Alcoa Inc., DSI Contract." Since 1965, Alcoa's Intalco Works has been a long-term, stable contributor to the Whatcom County property tax base providing a level of predictability that benefits all local property taxpayers. Through significant local spending and the continued employment of 465 family wage jobs, Alcoa's Intalco Works contributes substantially to other local tax revenue streams. The Washington State Legislature in cooperation with the Governor's Office has recently budgeted \$3 million for worker training and skill development to ensure that there will be a continued stable and capable local workforce moving into the future. The continued allocation of public renewable energy resources into local aluminum production is a good choice for the region. With the nearly infinite recyclability of aluminum, the public's return on investment is substantial and will continue to pay dividends to for generations. Over the years, Alcoa's Intalco Works continues to be an environmental steward by reducing greenhouse gas emissions by 75% and process water consumption by 90% over 1990 levels. Through this amendment, Alcoa Intalco Works will gain additional certainty over power supply in the future and allow them to focus on challenging international market conditions and evolving climate change initiatives while providing 465 local family wage jobs.I strongly urge your support. Thank you for your consideration. Steven N. Oliver, Whatcom County Treasurer</p>



Public Power Council

825 NE Multnomah, Suite 1225
Portland, OR 97232
(503) 595-9770
www.ppcpdx.org

April 21, 2016

Ms. Suzanne Cooper
Vice President, Bulk Marketing
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621
Submitted via www.bpa.gov/comment

RE: Proposed Amendment No. 3 to BPA Power Sales Agreement with Alcoa

Dear Ms. Cooper:

The Public Power Council (PPC) appreciates your outreach to preference power customers, and this opportunity to comment on the proposed Amendment No. 3 to BPA's long-term power sales contract with Alcoa. The pricing, terms, and conditions of BPA's decisions with regard to Direct Service Industry (DSI) power sales have a direct and substantial impact on the cost paid by BPA's preference customers. Given the cost and financial challenges faced by BPA in both the short and long-term, this is a particularly important time for BPA to make sound business decisions regarding its sales to Alcoa.

Amendment Public Process

Before addressing the substance of the proposed amendment, it is necessary to address the developments around unusual and highly compressed nature of the public process surrounding this issue in recent months. Amendment No. 2 was negotiated between Alcoa and BPA without public input or process. A full description of the terms and BPA business rationale for Amendment No. 2 was not released until several weeks after the amendment was signed. Some terms of the agreement were never publicly released by BPA. Our interpretation of the judicial guidance on the issue is that BPA has an affirmative obligation to demonstrate a sound business case in serving DSI customers, and the status of economic conditions at any particular point in time does not lessen that requirement. A retrospective justification, as in the case of Amendment No. 2, does not meet this standard.

As part of the decision letter for Amendment No. 2, BPA explained that “it was not feasible to provide a public comment period due to time constraints” because it “needed to act quickly due to the approaching curtailment date to obtain the benefits created by this transaction.” However, having signaled the possibility of additional amendments, BPA helpfully noted that “[n]either the lack of public comment period nor the short term nature of the Amendment should be viewed as setting precedent for the future, either promoting public involvement or entering into future transactions with Alcoa.”

The process around the release of proposed Amendment No. 3 is an improvement relative to Amendment No. 2. PPC appreciates BPA’s efforts to make public all relevant terms of Amendment No. 3 rather than referring to a confidential confirmation agreement. Still, ten days is a burdensome timeline to analyze data and synthesize meaningful comment on a complicated amendment to an already dense contract that is subject to numerous prior amendments. We encourage BPA to allow more time for future public comment.

Analysis of Proposed Amendment No. 3

BPA states in its letter regarding Amendment No. 3 that “Commenters should bear in mind that there are only two alternatives under consideration: proposed Amendment No. 3 or Alcoa Intalco operations to [sic] 10 MW during the period covered by Amendment No. 3.” This characterization of the possibilities as having only two choices is inappropriately oversimplified. The proper inquiry for a business case for this amendment should be whether, under the circumstances, BPA is obtaining the best benefit of this bargain with Alcoa. This should include a full analysis of all risks and benefits and an explanation of why the benefits outweigh the risks.

While BPA’s discussion of the proposed amendment offers some analysis of the potential benefits, it presents no analysis of counteracting risks and offers no insight into why BPA believes that this is the best possible bargain it could strike with Alcoa. Such information would aid PPC’s evaluation of the proposed amendment. However, based on the information BPA has presented, it appears that the proposed amendment would provide a modest amount of benefit relative to BPA’s presented alternative of status quo. And, at least of equal importance, the proposal appears to have a tolerable degree of risk.

Some of the benefits BPA cites in support of the proposed amendment are highly suspect, while others can be attributed to any power sales contract and cannot be

credibly cited in support of this particular amendment. For example, BPA cites a quantitative net benefit of approximately \$5.3 million for the over nineteen month term of the proposed Amendment. PPC is concerned about the inclusion of approximately \$570,000 of net benefits from "potential" oversupply cost reductions as a quantitative benefit. There is no analysis of how this represents an expected value of oversupply cost reduction and it is based on a variety of apparently arbitrary assumptions. The "insurance" factor of the amendment for oversupply costs is a valid benefit, but it is of a qualitative nature on a projected basis.

BPA's letter also erroneously cites "Future Net Benefits" as a qualitative feature of the proposed amendment. It is true that under the proposed amendment Alcoa's take or pay obligation at the IP rate increases to 75 MW, but this would be the case regardless once Alcoa had used up all of its 24 months of curtailment rights. Any future net benefits that might be achieved on this basis are therefore not a benefit of the proposed amendment.

BPA does not explain the equity of the proposed amendment relative to Amendment No. 2 and it is generally unclear how the value proposition for Amendment No. 3 was reached. It is our understanding that the central benefit of the agreement to Alcoa is the ongoing ability to operate the Intalco facility at the 2.5 potline level during the amendment period. For the timeframe of Amendment No. 2, approximately four and a half months, BPA estimated a net value of \$5.2 million. For the nineteen and a half month timeframe of Amendment No. 3, BPA estimates net benefits of \$5.3 million. In terms of cash paid by Alcoa above the market price of power, Amendment No. 2 included approximately \$2.3 million and Amendment No. 3 would include approximately \$2.1 million.

BPA's analysis does not contain, but would benefit from, an explanation of how it reached an agreement where the restriction on Alcoa's market purchases during curtailment is waived for a period over four times longer than in Amendment No. 2 for essentially equal compensation.

Given that the only large commitment of physical power by BPA is in the spring runoff period, there is little chance of BPA incurring incremental costs to serve Alcoa under the proposed amendment. Further, because the pricing of the surplus power is at a market index, there is minimal chance of BPA foregoing better sales opportunities. Therefore PPC believes that the proposed amendment has an acceptably low level of risk.

Conclusion

PPC appreciates the opportunity to comment on the proposed Amendment No. 3 to the Alcoa power supply contract. The relative transparency of the terms and low risk nature of the proposed amendment are positive features. PPC believes there are positive net benefits to the proposal relative to the status quo, but that BPA has overstated the quantitative value of those benefits with regard to oversupply costs. Finally, in response to BPA's request for comment on the benefits achieved, while the proposal is better than the status quo alternative, PPC has not seen analysis to support the statement that the proposed amendment represents the "best" outcome that could have been reached.

Based on the information BPA has presented, PPC does not object to the proposed Amendment No. 3. We thank you for your consideration of these comments.

Sincerely,

Michael Deen
Senior Policy Advisor



Industrial Customers of Northwest Utilities 818 SW 3rd Avenue, #266 • Portland, OR 97204 • 971-544-7169 • nwenergyusers.org

Alcoa316 0017

April 22, 2016

Via Electronic Mail

Elliot Mainzer
Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

Re: Proposal Regarding Amendment No. 3 to Power Sales Agreement with Alcoa, Inc.

Dear Administrator Mainzer:

The Industrial Customers of Northwest Utilities ("ICNU") appreciates the opportunity to submit comments on the Bonneville Power Administration's ("BPA") proposed Amendment No. 3 to Power Sales Agreement 13PM-10978 ("Amendment No. 3"), between BPA and Alcoa, Inc. ("Alcoa"). ICNU membership is comprised of many of the largest power customers in the Pacific Northwest, including Alcoa. Although Alcoa is a member of ICNU, Alcoa will be filing its own comments with BPA on Amendment No. 3, and its views will be expressed in those comments. Since Amendment No. 3 appears consistent with sound business principles, while providing benefits to both Alcoa and other Power Services customers, ICNU supports BPA's execution of Amendment No. 3.

The circumstances that have led to Amendment No. 3 provide a clear example of the challenges BPA will likely face in the decade ahead. As ICNU pointed out during the BP-16 rate case, the ever increasing upward trajectory of rates, if not checked, may result in a migration of preference customers off of BPA's system when the Regional Dialogue Contract expires. Simply put, the dilemma faced by Alcoa may confront many other large power customers throughout the region during the coming decade—choose operational curtailment or plant closure under the pressure of uneconomic BPA rates, or leave the BPA system to acquire economic power from alternative suppliers.

ICNU appreciates that BPA is addressing this issue through the Focus 2028 initiative; however, ICNU believes that the circumstances necessitating Amendment No. 3 should serve as a stirring reminder that the ideas and strategy discussed in Focus 2028 are only the very first step, and must be translated into immediate action, beginning with the BP-18 rate case.

1. Alcoa's Circumstances Represent an Object Lesson in the Challenges BPA Faces

BPA candidly acknowledges that the purpose of Section 5.5 in the original agreement between BPA and Alcoa "is to prevent Alcoa from obtaining access to lower market

priced power by triggering its right to curtail.”^{1/} Yet, given “Alcoa’s business predicament of needing to respond to deep and continuing unfavorable conditions in the global aluminum market,” BPA has found it reasonable “to suspend Section 5.5’s restrict[ion] on Alcoa and allow it to make market purchases as needed to maintain operation of the Intalco Facility.”^{2/} In sum, Alcoa is faced with a scenario in which continued operations are uneconomic under existing BPA rates, while market power provides an opportunity to maintain viable business operations.

Unless the recent trajectory of significant biennial rate increases is checked, the same scenario may confront BPA in the context of large consumers receiving power from preference customers. Like Alcoa, these customers are an important, longstanding component of the Northwest’s economy. Like Alcoa, other industrial customers increasingly see their commitments to purchase BPA power as an impediment to their viability rather than a regional competitive advantage. The difference between these customers and Alcoa is that only Alcoa has a contractual mechanism to move part of its load to market in the short term. If BPA rates continue to increase and stay significantly above market, it is not unreasonable to expect that more large consumers will seek more competitive power rates when their contracts allow it. While BPA has defended preference power rates in the past by noting that Tier 1 power has superior attributes to market products, Alcoa’s case, and the need for Amendment No. 3, should serve as a clear signal that many power consumers, including large customers, do not find value in those attributes commensurate with the Tier 1 premium above market. That disconnect will only grow more stark if BPA proposes further rate increases through the next decade.

2. Amendment No. 3 Represents the Best Alternative Considered

ICNU supports Amendment No. 3 as the best option being considered by the Administrator; namely, either executing Amendment No. 3 or doing nothing, thereby resulting in Alcoa’s exercise of its curtailment rights.

In its Summary and Discussion of Amendment No. 3, BPA states that “[w]hen large regional loads including Alcoa’s operate, as opposed to not operating, Bonneville will receive indirect benefits,” and “surplus sales will realize increased revenues because the mean value of prices for electricity in Western power markets are higher than they would otherwise be had the Alcoa loads not consumed electricity from Western power markets.”^{3/} At the end of the day, the Administrator follows sound business principles by choosing options which benefit BPA by keeping regional industries viable through low rate options.

Conclusion

ICNU supports Amendment No. 3 as the best option that has been presented, given the context. The need for Amendment No. 3 highlights the danger of the current paradigm

^{1/} Proposed Alcoa Amendment No. 3 – Summary & Discussion at 9.

^{2/} Id.

^{3/} Id. at 7.

in which a commitment to purchase BPA power can make operation of an industrial facility uneconomic. BPA and its stakeholders should heed this warning and keep an unrelenting focus on the goal articulated by the Administrator in the BP-16 Final ROD of "being the low-cost energy provider of choice when new power sales contracts are offered in the next decade."



April 22, 2016

Suzanne B. Cooper
Vice President, Bulk Marketing
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

Submitted via www.bpa.gov/comment

RE: BPA Proposal regarding Amendment No. 3 to Power Sales Agreement with Alcoa

Dear Ms. Cooper,

Thank you for the opportunity to comment on the proposed Amendment No. 3 to Power Sales Agreement between Bonneville Power Administration ("BPA") and Alcoa, Inc. ("Alcoa"). Pacific Northwest Generating Cooperative ("PNGC") has had a strong interest in BPA's transactions with the direct service industrial customers ("DSIs"), including those with Alcoa, for many years. The decisions BPA makes with respect to the DSIs have a significant impact on BPA's revenues, and therefore the preference power rates paid by PNGC and its members.

Very recently, in its Record of Decision Responding to the U.S. Court of Appeals for the Ninth Circuit's Remand Order to Bonneville in *Industrial Customers of Northwest Utilities, et al. v. Bonneville Power Administration*, 767 F.3d 912 (2014), dated January 21, 2016, BPA chose not seek recovery of subsidies that the Court held were unlawfully paid to the DSIs. In justifying its decision, BPA relied heavily on the historical relationship it has had with Alcoa and the desire to take a long term view of the potential value that relationship may bring in the future.

PNGC also places a very high value on longstanding business relationships and we believe BPA's relationship with its preference customers should also be given due weight. Additionally, BPA's history with Alcoa suggests that Alcoa's interests and demands have a tendency to take precedence over BPA's business interests. This again seems to be the case as indicated by the rushed process BPA underwent for Amendment No. 2 to the Alcoa Contract, where terms and documentation setting forth BPA's interests in the amended contract were not made public until after the amendment had been executed. Now, for Amendment No. 3, BPA is offering a public comment period, although it is frustratingly short and makes it difficult for BPA's customers to offer substantive feedback. Once again, it is our understanding that Alcoa's desired timeline and internal business process preferences dictated the timing of the negotiation and limited the opportunity for a meaningful comment period for BPA's other customers.

The manner in which BPA presents Amendment No. 3 is also lacking. In BPA's letter to the region regarding the new amendment, BPA states that "[c]ommenters should bear in mind that there are only two alternatives under consideration: proposed Amendment No. 3 or Alcoa Intalco

operations to 10MW during the period covered by Amendment No. 3." This is a false choice that ignores the universe of options available to BPA when it was negotiating with Alcoa for revised terms. BPA should have provided justification for why the terms of Amendment No. 3 were deemed to be the greatest value to BPA and its preference customers given the circumstances. Stated another way, why should customers accept that Amendment No. 3 did not leave significant potential value on the table? Amendment No. 3 provides Alcoa with the highly beneficial ability to go to market for the bulk of its power needs. It is unclear whether BPA received sufficient consideration in return for granting that flexibility to Alcoa.

PNGC also has concerns about certain aspects of the remaining analysis. First, Amendment No. 3 comes on the heels of Amendment No. 2, but covers a longer period – over 19 months, rather than approximately 4.5 months. Yet, BPA estimates very similar net benefits (\$5.2 million for Amendment No. 2 and \$5.3 million for Amendment No. 3) for both Amendments, despite the substantially longer term of Amendment No. 3. BPA did not provide any explanation for why Alcoa is receiving a substantially longer allowance to go to market for approximately the same compensation as the far shorter Amendment No. 2.

Second, BPA included "Future Net Benefits" in the qualitative benefits section of its letter to the region. BPA's explanation of those benefits appear to be that Alcoa's IP Firm Power Commitment will increase to 75 MW on February 15, 2018. However, that is not a benefit achieved by executing Amendment No. 3, because Alcoa is obligated to increase its purchase at the IP rate regardless of whether such amendment was executed or not. Unless there is more to this analysis than BPA provided in its letter, the inclusion of this item as a benefit is misplaced.

Ultimately, PNGC does not believe BPA presented adequate justification for the terms of Amendment No. 3 and for that reason we cannot explicitly endorse the amendment. Alcoa is receiving a tremendous amount of value by being permitted to go to market for the majority of its power needs and it is not clear that BPA is receiving fair compensation for that trade. Our core concern is that BPA has not demonstrated that it negotiated as beneficial an agreement as it could have. However, we also recognize that there is a cost to BPA if it does not enter into the Amendment it negotiated with Alcoa. Due to that fact, PNGC does not oppose BPA entering into Amendment No. 3 with Alcoa.

Sincerely,



Beth Looney
President & CEO



Northwest Requirements Utilities

(503) 233-5823
Fax (503) 233-3076
www.nru-nw.com

825 NE Multnomah, Suite 1135
Portland, Oregon 97232

April 22, 2016

Suzanne B. Cooper
Vice President, Bulk Marketing
Bonneville Power Administration
911 NE 11th Avenue
Portland, OR 97232

Submitted at www.bpa.gov/comment

Re: Comments Regarding Proposed Alcoa Amendment No. 3

Northwest Requirements Utilities ("NRU") appreciates this opportunity to comment on the Bonneville Power Administration's ("BPA") proposed Amendment No. 3 to its Power Sales Agreement with Alcoa. NRU also values BPA reaching out to its preference customers in advance of the public comment period.

NRU understands that BPA is attempting to acquire as much value as is possible under the current contractual arrangement the Agency has with Alcoa. In that regard, BPA has two alternatives to consider. The first is Alcoa exercising its curtailment right under the Power Sales Agreement, under which Alcoa would purchase 10 MW at the IP rate. Under the contractual terms, Alcoa cannot purchase power from third party sellers during curtailment and would therefore need to substantially reduce its operations at its Intalco facility.

Alternatively, BPA and Alcoa have negotiated proposed Amendment No. 3, under which Alcoa would (1) make an upfront cash payment to BPA, (2) buy 10 MW at the IP rate, (3) buy a set amount of surplus power from BPA at the day-ahead index price plus a smaller adder, and (4) provide some amount of Contingency Reserves. According to BPA, the Amendment No. 3 alternative would result in an overall benefit over the curtailment option of \$5.29 million.

NRU views Amendment No. 3 as a way for BPA to make an unappealing situation a bit better. It is frustrating that BPA provides Alcoa with extensive flexibility under a supposedly "take or pay" contract. We recognize that Alcoa is under financial pressure given the world market for aluminum. These economic pressures are not unique to Alcoa; many of NRU members are located in economically depressed areas that are struggling to recover from the recession and provide living wage jobs. Unlike Alcoa, however, NRU members have "take or pay" contracts that they cannot renegotiate as economic conditions change. Given that BPA's Tier 1 rate is currently \$10+ over market, it would certainly be more economic for preference customers to displace a portion of their

Tier 1 power with market priced power. Unlike with Alcoa, however, BPA does not permit this for its preference customers.

NRU does not object to BPA capturing additional benefits under Alternative 2 compared to Alternative 1. However, we must use this opportunity to once again point out the importance of BPA's cost competitiveness. BPA must find ways to adapt to the changing and dynamic energy markets in the west in order to maintain its competitiveness well into the future. As the frequent amendments to the Alcoa contract indicate, market conditions change rapidly and many businesses are struggling to stay afloat in our increasingly global economy. While BPA has demonstrated its concern about Alcoa's bottom line, it must recognize that these challenging economic conditions affect the businesses and residents within the service territories of NRU customers, and the Pacific Northwest economy as a whole.

Thank you for this opportunity to comment. If you have any questions regarding these comments, please contact Betsy Bridge or Megan Stratman at 503-233-5823.

CC: Members of NRU



Alcoa316 0020

Alcoa Inc.

4050 Mountain View Road
Ferndale, WA 98248
Tel: (360) 384-7301

Suzanne B. Cooper - PT
Vice President

Bulk Marketing
Bonneville Power Administration
PO Box 3621
Portland, OR 97208-3621

Comments filed online - PTL-5

Thank you for the opportunity to file comments on Bonneville Power Administration's ("BPA") proposed Amendment No. 3 to Contract No. 13PM-10978. Alcoa Inc. ("Alcoa") appreciates BPA's efforts to find mutually beneficial means to help enable Alcoa's Intalco smelter to continue to operate in challenging aluminum markets.

BPA has identified two alternatives in evaluating the economic impact to BPA, these being i) Alcoa running a 2.5 potline smelting operation and ii) Alcoa curtailing smelting operations but continuing to run a cold metal casthouse, which results in a site load of approximately 10MW. While we generally agree with the methodology used in evaluating the economics of these two scenarios, we also want to emphasize that a third option that includes a full curtailment of the Intalco smelter and casthouse results in an Intalco load of approximately 4MW. That scenario would result in an overstatement of BPA's net revenues (as measured by the difference between the IP rate and market rates) from a "fully curtailed" alternative by approximately \$1.5 million during the Amendment No. 3 period.

1. Benefits to BPA

Because of the structure of Amendment No. 3, BPA has "hardwired" benefits that it conservatively estimates to be \$5.29 million MORE than the benefit it would realize if the Intalco smelter is forced to curtail fully at the end of June. These benefits are "hardwired" because they consist of an assured, up-front cash payment; virtually assured net revenue from power sales at the Industrial Power rate; an assured sale of surplus power at market prices plus an adder in excess of the market price; and avoided transmission and ancillary service costs.

We believe that in addition to these economic benefits, there are other tangible and intangible benefits that would come about from BPA's execution of the Amendment. They include the following.

a. Demand Shift

In the absence of Amendment No. 3, the Intalco smelter could curtail, reducing West Coast electric power demand by more than 350 aMW at the end of June. As BPA recognizes,¹ at the margin, this size load can make a significant difference in the amount of surplus power chasing load, thereby increasing surplus power prices. A tangible, but difficult-to-quantify benefit of the continued Intalco load is not only the revenue that BPA will achieve from a direct sale, but the additional surplus revenue that BPA is likely to achieve for all of its own surplus sales at a time when surplus power on the West Coast may otherwise be further depressing power markets. In the past, BPA has calculated the value of preventing this “demand shift.”² Alcoa urges BPA to attempt to estimate the value of this additional market in stabilizing surplus sales prices, as it has in the past.

b. Benefits Consistently Exceeding Forecasts

In recent years, BPA has consistently—and considerably—underestimated the value provided by the Intalco load to BPA. While BPA has repeatedly forecast only modest benefits from its Equivalent Benefits Test (“EBT”) contracts with Alcoa, BPA’s gains from those agreements have in fact been substantial. There is no reason to expect a different result this time. Thus, BPA should at least acknowledge that its estimation of the benefits it will receive under Amendment No. 3 is highly conservative. BPA should also recognize these past benefits when assessing whether retention of the Intalco load is consistent with sound business principles.

In the Record of Decision (“ROD”) approving the original 2009 EBT contract (“2009 EBT Contract”), BPA forecast that it could sell power on the market from December 2009 through May 2011 (the original term of that agreement) for roughly \$14.3 million more than it could earn selling the same amount of power to Alcoa at the IP rate. Importantly, this figure excluded the tangible secondary benefits associated with a sale to Alcoa, such the value of reserves, avoided transmission and ancillary service expenses, and preventing demand shift.³ In reality, from December 2009 through May 2011, BPA sold IP-rate power to Alcoa for over \$20.1 million more than it would have made selling that same amount at market rates, without accounting for demand shift and other secondary benefits.⁴ In other words, BPA underestimated the difference between the IP and market rates by at least \$34.4 million for this 18-month period.

¹ Bonneville Power Administration, Letter to Regional Customers, Stakeholders, and Other Interested Parties Re: Bonneville Power Administration Proposal Regarding Amendment No. 3 to Power Sales Agreement with Alcoa, Inc., 7-8 (April 12, 2016).

² See, e.g., Bonneville Power Administration, *Power Sale to Alcoa Inc. Commencing December 22, 2009*, Administrator’s Record of Decision, 44-45 (December 21, 2009) (“2009 ROD”).

³ BPA estimated these secondary tangible benefits to be worth approximately \$14.3 million from December 2009 through May 2011. 2009 ROD at 41-46.

⁴ See Attachment A.

When BPA and Alcoa first modified the 2009 EBT Contract in October 2010, BPA forecast that from June 2011 through May 2012 it could sell power on the market for roughly \$5.6 million more than it would earn selling that power to Alcoa at the IP rate, again exclusive of the value of tangible secondary benefits.⁵ In reality, BPA was off by about \$43.7 million: IP-rate sales to Alcoa during this period were worth \$38.1 million more than market-rate sales, exclusive of secondary benefits.⁶

All told, exclusive of secondary benefits, the 2009 EBT Contract permitted BPA to sell power to Alcoa for approximately \$82.9 million more than it would have made selling the same amount of power at market rates.⁷

Alcoa and BPA entered into the current EBT contract ("2012 EBT Contract") in December 2012. That agreement went into effect on January 1, 2013, and is slated to continue through September 2022. In its ROD approving the contract, BPA forecast in pertinent part that from January 2013 through April 2015, it would be able to sell power to Alcoa for \$31.1 million above market prices, exclusive of tangible secondary benefits.⁸ In fact, BPA's sales to Alcoa during this period beat the market by \$47.5 million, exclusive of secondary benefits.

Amendment No. 1 to the 2012 EBT Contract, executed April 30, 2015, reduced Alcoa's purchase obligation from 300MW to 75 MW.⁹ In the ROD approving the amendment, BPA again forecast that it would beat the market by selling to Alcoa. In pertinent part, BPA estimated that from May 2015 through mid-February 2016, BPA's sales to Alcoa would exceed the market by approximately \$7.3 million, exclusive of tangible secondary benefits.¹⁰ Of all of the EBT estimates BPA made since the 2009 contract, this is the only one to have overestimated BPA's gain. Still, Alcoa paid more than \$6.3 million above market prices during Amendment No. 1.

Finally, the parties entered into Amendment No. 2 to the 2012 EBT Contract in February 2016. That agreement, covering the period from February 15, 2016 to June 30, 2016, permitted Alcoa to reduce its minimum IP-rate purchase to 10MW while purchasing 300 MW of surplus firm

⁵ Bonneville Power Administration, *Administrator's Record of Decision Granting Alcoa's Request to Extend the Initial Period of Alcoa's Power Sales Agreement*, Contract No. 10PB-12175, 11 (October 29, 2010).

⁶ See Attachment A.

⁷ By a series of amendments, Alcoa and BPA extended the 2009 EBT Contract through December 2012. From June 2012 through December 2012, Alcoa paid \$58.9 million. However, market sales during that period would have brought only \$34.3 million. Thus, BPA netted BPA an additional \$24.7 million exclusive of tangible secondary benefits during this period. See Amendment Nos. 2-5 to Contract No. 10PB-12175.

⁸ Bonneville Power Administration, *Administrator's Record of Decision, Power Sales Agreement Offer to Alcoa, Inc.*, Attachment A at 14 (December 6, 2012) ("2012 ROD").

⁹ See Bonneville Power Administration, *Record of Decision in Support of Amendment No. 1 to Power Sales Contract No. 13PM-10978 Between Bonneville Power Administration and Alcoa, Inc.*, 1 (May 8, 2015).

¹⁰ *Id.* at Attachment A p. 17. This figure uses BPA's estimates for May 2015 through January 2016, plus one-half of the BPA estimate for February 2016.

power from BPA at \$1.52/MWh above market rates.¹¹ BPA forecast that during this period it would be able to sell power to Alcoa at \$1.5 million above market, not taking into account tangible secondary benefits.¹² Through April 2016, Alcoa has already paid BPA approximately \$1.4 million above market rates¹³ under Amendment No. 2 (exclusive of secondary benefits), virtually guaranteeing that BPA will have underestimated the benefits of the Intalco load.

All told, exclusive of secondary benefits, the 2012 EBT Contract permitted BPA to sell power to Alcoa for approximately \$55.2 million more than it would have made selling the same power at market rates.

2. Conclusion

Alcoa appreciates BPA's efforts to continue to find ways to allow the Intalco smelter to continue to operate. This continued operation has demonstrable benefits to both BPA (economically and operationally) and to Alcoa. By permitting Alcoa to purchase market power during the period of Amendment No. 3, BPA simultaneously reduces its own market price risk and realizes more revenue than it would otherwise realize if Alcoa simply curtailed. It also permits BPA and Alcoa to attempt to find mutually beneficial ways to help allow the Intalco smelter to continue to operate. Should Intalco curtail, it would deprive BPA of the operational benefits of having an interruptible and flexible industrial load on its system.

Sincerely,



¹¹ Bonneville Power Administration, Letter to Regional Customers, Stakeholders, and Other Interested Parties Re: Alcoa Amendment No. 2, at 1-3 (March 9, 2016).

¹² *Id.* at 3.

¹³ This calculation uses market rates as of April 15, 2016.

Attachment A:

Calculations: Increased BPA Power Sales Revenue as a Result of Sales to Alcoa

Year	Month	MTW	Mon/Tu	MTW	Alcoa's Rate \$/MWH	Sales to Alcoa \$ at Alcoa Rate	Market Rate \$/MWH	Market Dollars	Market Dollars \$	Market Dollars \$	Sales to Alcoa Less Market \$	Sales to Alcoa Less Market \$
						By Period	By Period	By Period	By Period	By Period	By Period	By Period
2009	Dec-22-31	285.0	740	68,000	36.53	\$ 2,517,068	51.45	\$ 3,519,380			\$ -	\$ 1,031,212
2010	Jan	290.0	744	216,432.2	38.23	\$ 8,274,058	44.25	\$ 9,578,010			\$ -	\$ 1,303,942
	Feb	295.2	743	218,776.6	38.11	\$ 7,966,132	42.81	\$ 9,492,592			\$ -	\$ 1,526,460
	Mar	298.6	743	221,856.5	35.98	\$ 7,045,792	37.64	\$ 8,350,679			\$ -	\$ 1,304,887
	Apr	303.4	740	217,535.1	32.42	\$ 7,045,792	35.70	\$ 7,755,293			\$ -	\$ 712,533
	May	303.4	744	225,754.3	29.28	\$ 6,610,686	28.09	\$ 6,341,438			\$ -	\$ 268,648
	Jun	306.5	720	220,688.5	29.68	\$ 6,559,035	11.24	\$ 2,480,539			\$ -	\$ 4,069,496
	Jul	303.7	744	225,977.5	33.44	\$ 7,556,688	30.64	\$ 6,923,951			\$ -	\$ 632,737
	Aug	306.6	744	228,079.4	37.24	\$ 8,493,677	34.72	\$ 7,948,917			\$ -	\$ 574,760
	Sep	308.3	720	221,922.7	37.33	\$ 8,385,494	33.20	\$ 7,684,890			\$ -	\$ 916,605
	Oct	306.6	746	228,703.4	32.62	\$ 7,460,207	30.38	\$ 7,047,918			\$ -	\$ 512,289
	Nov	308.3	720	221,967.6	34.61	\$ 7,682,299	32.85	\$ 7,201,676			\$ -	\$ 390,663
	Dec	304.8	744	226,779.9	36.62	\$ 8,582,002	32.86	\$ 7,451,088			\$ -	\$ 830,014
2011	Jan	305.4	744	227,927.7	38.23	\$ 8,685,577	26.37	\$ 6,036,510			\$ -	\$ 2,649,067
	Feb	320.0	743	219,040	38.11	\$ 8,195,174	22.73	\$ 4,887,859			\$ -	\$ 3,307,315
	Mar	320.0	743	237,760	35.08	\$ 8,554,605	16.95	\$ 4,030,932			\$ -	\$ 4,524,573
	Apr	320.0	720	230,400	32.42	\$ 7,469,568	21.21	\$ 4,886,784			\$ -	\$ 2,582,784
	May	320.0	744	228,080	29.28	\$ 6,979,982	15.78	\$ 3,756,902	\$ 511,018,967		\$ 3,214,080	\$ 20,135,653
	Jun	320.0	720	230,400	29.68	\$ 6,838,272	13.71	\$ 3,158,744			\$ -	\$ 3,679,488
	Jul	320.0	744	238,080	33.44	\$ 7,966,385	20.77	\$ 4,944,922			\$ -	\$ 3,016,474
	Aug	320.0	744	238,080	37.24	\$ 8,866,099	28.51	\$ 6,287,661			\$ -	\$ 2,578,438
	Sep	320.0	720	230,400	37.33	\$ 8,600,832	31.56	\$ 7,271,424			\$ -	\$ 1,329,408
	Oct	320.0	744	238,080	35.72	\$ 8,503,526	26.09	\$ 6,210,611			\$ -	\$ 2,292,915
	Nov	320.0	720	230,400	35.76	\$ 8,251,050	30.98	\$ 7,147,706			\$ -	\$ 1,103,344
	Dec	320.0	744	238,080	38.35	\$ 9,130,598	30.74	\$ 7,318,554			\$ -	\$ 1,812,045
2012	Jan	320.0	744	238,080	36.83	\$ 8,708,128	25.13	\$ 5,983,616			\$ -	\$ 2,724,512
	Feb	320.0	696	222,720	38.55	\$ 8,519,995	23.38	\$ 5,252,694			\$ -	\$ 3,267,307
	Mar	320.0	743	237,760	37.19	\$ 8,842,182	16.50	\$ 3,923,372			\$ -	\$ 4,918,810
	Apr	320.0	720	230,400	35.17	\$ 7,104,036	9.43	\$ 2,177,459			\$ -	\$ 5,926,579
	May	320.0	744	238,080	30.78	\$ 7,328,384	6.05	\$ 1,441,408	\$ 61,618,124		\$ 5,886,976	\$ 38,096,376
	Jun	320.0	720	230,400	31.15	\$ 7,177,472	4.94	\$ 1,158,979			\$ -	\$ 6,018,502
	Jul	320.0	744	238,080	37.36	\$ 8,864,484	13.08	\$ 3,116,570			\$ -	\$ 5,777,914
	Aug	320.0	744	238,080	39.62	\$ 9,432,088	25.26	\$ 6,618,278			\$ -	\$ 3,414,810
	Sep	320.0	720	230,400	39.72	\$ 9,195,074	24.85	\$ 6,456,650			\$ -	\$ 3,493,376
	Oct	320.0	744	232,000	35.72	\$ 7,972,058	30.62	\$ 6,831,072			\$ -	\$ 1,157,984
	Nov	320.0	720	216,900	35.76	\$ 7,735,359	27.92	\$ 6,039,841			\$ -	\$ 1,695,518
	Dec	320.0	744	232,000	38.35	\$ 8,559,936	24.44	\$ 5,454,888	\$ 34,260,219		\$ 3,105,048	\$ 24,663,132
2013	Jan	300.0	744	212,000	36.83	\$ 8,220,120	27.55	\$ 6,118,128			\$ -	\$ 2,071,992
	Feb	300.0	672	201,600	38.35	\$ 7,712,064	28.49	\$ 7,243,584			\$ -	\$ 1,068,480
	Mar	300.0	743	222,900	37.19	\$ 8,286,540	31.62	\$ 7,047,211			\$ -	\$ 1,244,335
	Apr	300.0	720	216,000	35.17	\$ 7,597,536	26.01	\$ 6,181,428			\$ -	\$ 1,389,792
	May	300.0	744	221,200	30.78	\$ 6,879,360	24.86	\$ 6,538,068			\$ -	\$ 1,897,200
	Jun	300.0	720	216,000	31.15	\$ 6,728,880	28.22	\$ 6,585,268			\$ -	\$ 633,312
	Jul	300.0	744	223,200	37.36	\$ 8,336,560	34.86	\$ 7,568,416			\$ -	\$ 570,144
	Aug	300.0	744	223,200	39.62	\$ 8,944,620	33.67	\$ 7,463,622			\$ -	\$ 1,356,816
	Sep	300.0	720	216,000	38.72	\$ 8,323,328	28.52	\$ 7,205,176			\$ -	\$ 1,155,408
	Oct	300.0	744	228,000	43.68	\$ 13,312,800	24.34	\$ 5,912,352			\$ -	\$ 7,400,448
	Nov	300.0	720	216,000	46.57	\$ 10,352,016	20.85	\$ 4,439,008			\$ -	\$ 5,912,912
	Dec	300.0	744	222,000	44.63	\$ 9,962,160	40.26	\$ 11,359,008			\$ -	\$ 2,021,743
2014	Jan	300.0	744	222,000	44.32	\$ 9,962,160	40.26	\$ 11,359,008			\$ -	\$ 2,021,743
	Feb	300.0	672	201,600	44.32	\$ 9,962,160	40.26	\$ 11,359,008			\$ -	\$ 2,021,743
	Mar	300.0	743	222,900	38.21	\$ 8,517,615	64.53	\$ 13,816,272			\$ -	\$ 4,880,496
	Apr	300.0	720	216,000	33.51	\$ 7,237,872	26.06	\$ 5,868,438			\$ -	\$ 1,789,438
	May	300.0	744	222,000	27.47	\$ 6,130,872	25.23	\$ 5,449,464			\$ -	\$ 1,837,298
	Jun	300.0	720	216,000	29.41	\$ 6,353,568	22.16	\$ 4,947,144			\$ -	\$ 1,049,496
	Jul	300.0	744	223,200	37.98	\$ 8,479,968	24.56	\$ 5,304,072			\$ -	\$ 1,049,496
	Aug	300.0	744	223,200	41.06	\$ 9,164,880	33.21	\$ 7,413,360			\$ -	\$ 1,063,608
	Sep	300.0	720	216,000	41.22	\$ 8,904,480	37.23	\$ 8,042,424			\$ -	\$ 723,060
	Oct	300.0	744	223,200	41.22	\$ 8,904,480	37.23	\$ 8,042,424			\$ -	\$ 862,056

[illegible]